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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

IN MATTER OF:)	
)	ADMINISTRATIVE ORDER
Cross Brothers Pail Recycling)	PURSUANT TO SECTION 106
Pembroke Township, Illinois)	OF THE COMPREHENSIVE
)	ENVIRONMENTAL RESPONSE,
)	COMPENSATION, AND
)	LIABILITY ACT OF 1980,
RESPONDENTS:)	as amended
)	
James D. Cross;)	
Sherwin-Williams Company;)	
Glidden Company/SCM Corporation;)	
Frederick H. Levey Company, Inc.;)	
Inmont Corporation; and)	
Specialty Coatings Company, Inc.)	
)	
)	
)	

I.
PREAMBLE

The following Administrative Order ("Order") is issued on this date to the Respondents listed above, pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9606(a), as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA"), and delegated to the U.S. Environmental Protection Agency ("U.S. EPA" or "Agency") by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrator by U.S. EPA Delegation No. 14-14-B, issued February 26, 1987, and further delegated to the Director of the Waste Management Division, Region V by Delegation No. 14-14-B, issued September 14, 1987. Pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a), notice of issuance of this Order has been given to the State of Illinois.

This Administrative Order requires the Respondents, and each of them, to undertake remedial action activities at the Cross Brothers Pail Recycling Site located in Pembroke Township, Illinois, and described in greater detail below, (the "Facility"), to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the release or threat of a release of hazardous substances present at the Site.

II. PARTIES BOUND

This Administrative Order applies to and is binding upon the Respondents, their successors and assigns. The Respondents shall provide a copy of this Administrative Order to any engineer or contractor hired to perform the work required by this Administrative Order. The Respondents shall also require that any contractor provide a copy of this Administrative Order to any subcontractor retained to perform any part of the work required by this Administrative Order.

III. DEFINITIONS

Whenever the following terms are used in this Administrative Order or the Appendices attached hereto, the definitions specified in this Section shall apply:

- A. "Agencies" refers to U.S. EPA and IEPA collectively.
- B. "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499.
- C. "Engineer(s)" means the company or companies retained by the Respondents to prepare the plans and implement the remedial action required pursuant to this Administrative Order.
- D. "Facility" means the "facility" as that term is defined at Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9), where disposal of hazardous substances was conducted; which Facility is located in Pembroke Township, Kankakee County, Illinois, and is commonly known as the Cross Brothers Pail Recycling site.
- E. "Hazardous substance" shall have the meaning provided in Section 101(14) of CERCLA, 42 U.S.C. Section 9601(14).
- F. "IEPA" means the Illinois Environmental Protection Agency.
- G. "National Contingency Plan" shall be used as that term is used in Section 105 of CERCLA, 42 U.S.C. Section 9605.
- H. "Parties" means the United States of America and the Respondents.

I. "Record of Decision" or "ROD" means the U.S. EPA and IEPA approved document which describes and approves the remedy to be implemented at the Facility, signed by the Regional Administrator of U.S. EPA, Region V, on September 28, 1989, and attached as Appendix I.

J. "Respondents" means the persons named in the caption of this Administrative Order.

K. "Response Costs" means any costs incurred by U.S. EPA pursuant to 42 U.S.C. Sections 9601 et seq.

L. "Section 106 Administrative Record" means the Administrative Record which includes all documents considered or relied upon by U.S. EPA in preparation of this Administrative Order. The Section 106 Administrative Record Index is a listing of all documents included in the Section 106 Record, and is set forth in Appendix II.

M. "State" means the State of Illinois.

N. "United States" means the United States of America.

O. "Work" means the activities to be undertaken by Respondents in accordance with this Administrative Order and appendices hereto.

IV.

FINDINGS OF FACT AND DETERMINATIONS

A. The Cross Brothers Pail Recycling site is a Facility within the meaning of Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). The site is located on Lot 19 and 20, Point Plaza Subdivision First Addition, being part of the Northeast Quarter of Section 15, Township 30 North, Range 11, West of the Second Principal Meridian in Kankakee County, Illinois.

B. The site is a parcel of land of approximately 20-acres situated within a semi-residential area that is interspersed with small farms and undeveloped pastureland. The nearest body of surface water is the Kankakee River which is located approximately 4.5 miles north of the Facility.

C. The site is owned by James D. Cross. Mr. Cross currently resides on the site. In addition, Mr. Cross presently operates a wood pallet reclamation business at the site.

D. James and Abner Cross operated a pail and drum reclamation business at the site from approximately 1961 until 1980. The reclamation operation consisted of placing drums and pails containing dye, ink and paint residue onto the ground,

allowing their contents to drain. Waste solvents were then poured over and into the pails and drums, and ignited to dissolve any remaining residue. The pails and drums were then moved to a reconditioning shed, sand blasted, and repainted for resale.

E. In June 1980, the site was discovered by the IEPA. An inspection of the site documented that the reclamation operation had resulted in a layer of waste residue up to 6 inches thick covering approximately 10 acres of the site. Numerous pails and drums were present at the site. In addition, approximately 10 trenches containing crushed pails and drums were identified at various locations around the site. These trenches varied in size, but were generally less than 20 feet in width and depth.

F. On August 19, 1980, the Illinois Attorney General's Office obtained a court order from the Kankakee Circuit Court requiring the site to be closed and cleaned up.

G. Subsequent to the court order, IEPA conducted a limited amount of field work to characterize the contamination at the site. The results of this investigation are summarized in a August 1981 report by R.B. St. John entitled A Hydrogeological Study of the Pembroke/Cross Brothers Site. This report indicated the presence of surficial and buried waste materials (i.e. pails and drums) and a groundwater contaminant plume at the Facility.

H. In December 1982, the site was proposed for inclusion on the National Priorities List (NPL). The site listing was finalized in September 1983.

I. From May 1983 to June 1984, IEPA conducted a Remedial Investigation/Feasibility Study at the site through a Cooperative Agreement (CA) with U.S. EPA. The primary focus of this investigation was to: locate additional drums/bulk waste, perform a waste inventory and characterization survey and accurately define the groundwater contaminant plume. Concurrent with the RI/FS, the Kankakee County Circuit Court ruled that James and Abner Cross could continue their pail and drum reclamation business at the site, as well as begin a wood pallet reclamation operation, as long as the pails and drums contained no hazardous wastes or substances.

J. On March 25, 1985, U.S. EPA, with IEPA's concurrence, signed a Record of Decision (ROD) requiring certain Initial Remedial Measures (IRM) at the site. The IRM provided for the removal of surficial and buried waste materials, as well as visibly contaminated soils. In addition, the ROD recommended the investigation of soil and groundwater be continued after completion of the IRM to determine if any additional remedial actions would be necessary at the site.

K. From October 16, 1985 until November 15, 1985, IEPA conducted the IRM activities utilizing \$ 1.1 million of State funds. During the IRM, the disposal area was cleared of all vegetation and 6438 tons of surficial soil containing paint, ink, dye and tar-like residue, 56 tons of crushed pails, 542 drums still containing wastes and 572 empty drums were removed from the site.

L. From January 1986 until July 1989, IEPA conducted a Hydrogeological Study/Feasibility Study (HS/FS) at the site through a CA with U.S. EPA.

M. The HS indicates that the site area is underlain by the following sequence of sedimentary units: windblown deposits, glacial outwash, glacial till and a carbonate bedrock. The windblown deposits/glacial outwash collectively form an extensive aquifer referred to as the Kankakee aquifer. The glacial till separates the Kankakee aquifer from the carbonate bedrock aquifer. The Kankakee aquifer is flowing in a north-northeast direction.

N. Analyses of groundwater from the Kankakee aquifer and surface and subsurface soil samples during the HS revealed the presence of numerous hazardous substances as defined in Section 101(14) of CERCLA, including benzene, 1,1-dichloroethene, 1,2-dichloroethane, ethyl benzene, polychlorinated biphenyls (PCBs), trichloroethene, tetrachloroethene, toluene, xylenes, and vinyl chloride. A summary of the range and frequency of the contaminants detected in groundwater and surface and subsurface soil samples is presented in Appendix III.

O. Several private drinking water supply wells exist in the Kankakee aquifer approximately 1250 feet north of the Cross Brothers site. Contaminated groundwater has currently moved approximately 750 feet north of the Cross Brothers site. Based on the linear groundwater velocity calculated in the HS (192 feet/year), the contaminated groundwater would reach the private drinking water supply wells within a five year period.

P. The maximum and representative cumulative lifetime cancer risk values for the groundwater are 7.9×10^{-2} and 4.2×10^{-3} , respectively. The calculation of these values is based upon the ingestion of groundwater as a drinking water source. The risk values calculated for the groundwater exceed the acceptable risk range which is 10^{-4} to 10^{-7} , with 10^{-6} being the targeted risk level, set forth in U.S. EPA guidance. In addition, the concentrations of the following contaminants exceeded their Maximum Contaminant Levels (MCLs) established in the Safe Drinking Water Act: benzene, trichloroethene, vinyl chloride, 1,1-dichloroethene and 1,2-dichloroethane.

Q. The contaminants detected in the surface and subsurface soils, due to their physical and chemical properties (i.e. volatile, soluble in water, etc.), present a risk to groundwater. In addition, PCBs are present in the surface and subsurface soils above detection limits.

R. On July 26, 1989, the Agencies provided the HS/FS and the Proposed Plan for the final remedial action to the public. An opportunity for public comments was provided. Comments were submitted in writing by August 25, 1989, or orally at the public hearing held in Hopkins Park, Illinois on August 21, 1989. The Respondents were allowed to submit comments on the HS/FS and the Proposed Plan for the final remedy during this public comment period.

S. Considering the HS/FS, the Proposed Plan and the public comments received, the Agencies selected a final remedy for the groundwater and surface and subsurface soils at the site. The Agencies' decision is summarized in the Record of Decision (ROD) signed by the U.S. EPA Regional Administrator, Region V, and the IEPA Director on September 28, 1989. The ROD is attached as Appendix I. The selected remedy consists of the following major components:

- Re-sampling of the localized PCB soil area to identify the existence of PCBs.
- If identified, remove the localized PCB-contaminated soil area and incinerate the soils at a TSCA-approved incinerator.
- Install and maintain a groundwater collection system capable of capturing the groundwater contaminant plume.
- Install and maintain an on-site groundwater treatment facility to remove contaminants from the collected groundwater.
- Install and maintain a soil flushing system for the 3.5 acres of contaminated soil within the disposal area.
- Install and maintain a 6-inch vegetative cover over that portion of the disposal area not subject to the soil flushing operation.
- Monitor the groundwater collection/treatment system and the groundwater contaminant plume during groundwater remediation activities.

- o Install and maintain a 6-inch vegetative cover over the 3.5 acre area subject to soil flushing upon termination of the soil flushing operation.
- o Install and maintain a fence around the site during remedial activities.
- o Initiate a deed notification identifying U.S. EPA and IEPA concerns regarding any intrusive activities to be conducted at the site.

T. The ROD includes a discussion of the Agencies' reasons for the selection of the final remedy. The remedial action has been determined to be a cost-effective remedial action which provides adequate protection of public health, welfare, and the environment, and meets all Federal and more stringent State requirements that are applicable or relevant and appropriate (ARARs).

U. From approximately 1961 until 1980, "hazardous substances" as defined in Section 101(14), of CERCLA, 42 U.S.C. Section 9601(14), were deposited, stored, disposed of, placed, or located at the site.

V. The past, present and/or future migration of hazardous substances from the site constitutes an actual, and/or threatened "release" into the environment as defined in Section 101(22) of CERCLA, 42 U.S.C. Section 9601(22), and may present an imminent and substantial endangerment to the public health or welfare or the environment.

W. From approximately 1961 until 1980, James D. Cross was the "owner" and/or "operator" of the site as defined in Section 101(20) of CERCLA, 42 U.S.C. Section 9601 (20), and "owned" and/or "operated" the site within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. Section 9607(a)(2).

X. Respondents are "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C. Section 9601 (21), and, based upon information available to U.S. EPA, each Respondent (with the exception of Mr. Cross) generated and/or transported hazardous substances which were disposed of at the site, making each Respondent a "liable person" with respect to the site within the meaning of Section 107 of CERCLA, 42 U.S.C. Section 9607.

Y. The actions required by this Administrative Order are necessary to protect the public health or welfare or the environment, and are consistent with the National Contingency Plan, 40 CFR Part 300 et seq., as amended.

V.
ORDER

Based upon the foregoing Findings of Fact and Determinations, and pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a), it is hereby ordered that Respondents perform the work as described below.

A. Work to be Performed

Based on the foregoing Determinations and Findings, and pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9096(a), it is hereby ordered that the Respondents undertake the actions at the Facility described below and in Appendix IV.

1. The Respondents shall, within sixty (60) calendar days of the effective date of this Order, submit to U.S. EPA and IEPA a Remedial Design/Remedial Action ("RD/RA") Work Plan to implement all portions of the recommended alternative outlined in the Record of Decision for the Facility (Appendix I) and in the Scope of Work (Appendix IV).

2. The RD/RA Work Plan shall be written in sufficient detail to fully address all necessary design parameters of the recommended alternative and shall be consistent with U.S. EPA's Superfund Remedial Design and Remedial Action Guidance, June 1986 and any subsequent amendments. In addition, the RD/RA Work Plan shall provide for the preparation and submission, including a schedule, of the following, but not limited to, supplemental documents:

- Site Health and Safety Plan
- Emergency and Contingency Plans
- Quality Assurance Project Plan and Sampling and Analysis Plan for all sampling activities
- Quality Assurance Project Plan for all construction activities
- Equipment and Personnel Decontamination Procedures
- A plan for satisfaction of permitting and access requirements
- Any other project plans specified in the Scope of Work

The RD/RA Work Plan and the other supplemental documents submitted by the Respondents shall demonstrate that the Respondents can properly conduct the actions required by this Order.

3. U.S. EPA shall, in consultation with IEPA, review and approve/disapprove the RD/RA Work Plan and the other supplemental documents. If the RD/RA Work Plan and the other supplemental documents are acceptable, approval shall be granted, in writing,

and the RD/RA Work Plan and the other supplemental documents shall become an integral and enforceable element of this Order. If the RD/RA Work Plan or any of the supplemental documents are disapproved, U.S. EPA shall state to the Respondents, in writing, the reasons for disapproval. Respondents shall, within thirty (30) calendar days of receipt of U.S. EPA's letter stating disapproval, incorporate all changes requested by U.S. EPA into the RD/RA Work Plan or supplemental document and submit an Amended RD/RA Work Plan or supplemental document to U.S. EPA. If approved, the Amended RD/RA Work Plan or supplemental document shall become an integral and enforceable element of this Order. Failure to incorporate all changes requested by U.S. EPA into the Amended RD/RA Work Plan or the supplemental documents shall constitute a violation of the terms of this Order.

4. Respondents shall begin implementation of the RD/RA Work Plan and the supplemental documents (or Amended RD/RA Work Plan and supplemental documents) immediately upon receipt of written approval by U.S. EPA. Unless otherwise directed by U.S. EPA, and as mandated by Section 122(e)(6) of CERCLA, 42 U.S.C. Section 9622(e)(6), the Respondents shall not commence field activities until they receive written approval of the RD/RA Work Plan and supplemental documents by U.S. EPA. Respondents shall complete the tasks outlined in the RD/RA Work Plan in accordance with the schedule approved by U.S. EPA in the RD/RA Work Plan. Failure of the Respondents to properly implement all aspects of the RD/RA Work Plan or the supplemental documents shall be deemed a violation of the terms of this Order.

5. The Site Health and Safety Plan developed pursuant to this Order shall be in accordance with U.S. EPA's guidance and protocol. After approval of the Site Health and Safety Plan by U.S. EPA representatives, Respondents shall implement the Plan during all phases of activity at the Facility.

B. Respondents' Contractor and Remedial Design

All remedial work to be performed by the Respondents pursuant to this Administrative Order shall be under the direction and supervision of a qualified professional engineer. Prior to the initiation of remedial work at the Facility, the Respondents shall notify U.S. EPA and the IEPA, in writing, of the name, title, and qualifications of any proposed engineer to be used in carrying out the remedial work to be performed pursuant to this Administrative Order. Selection of any such engineer shall be subject to approval by U.S. EPA in consultation with IEPA.

VI.
QUALITY ASSURANCE

Respondents shall use quality assurance, quality control, and chain of custody procedures in accordance with U.S. EPA's "Interim Guidelines and Specifications For Preparing Quality Assurance Project Plans" (QAM-005/80) and subsequent amendments. Prior to the commencement of any sampling and analysis under this Administrative Order, Respondents shall submit a Quality Assurance Project Plan (QAPP) to U.S. EPA and IEPA that is consistent with the Scope of Work, Work Plans and applicable guidelines. Prior to the development and submittal of a QAPP, Respondents shall attend a pre-QAPP meeting sponsored by the Agencies to identify all monitoring and data quality objectives. U.S. EPA, after review of Respondent's QAPP and IEPA's comments thereon, will notify the Respondents of any required modifications, conditional approval, disapproval, or approval of the QAPP. Upon notification of disapproval or any need for modifications, Respondents shall make all required modifications to the QAPP within fourteen (14) calendar days of receipt of such notification.

Respondents shall ensure that U.S. EPA personnel or their authorized representatives are allowed access to any laboratory utilized by the Respondents in implementing the Order. Respondents shall ensure that any such laboratory will analyze samples submitted by U.S. EPA or IEPA for quality assurance monitoring.

VII.
FACILITY ACCESS, SAMPLING, DOCUMENT AVAILABILITY

A. To the extent that the Facility or other areas where work under this Order is to be performed is under ownership or possession by someone other than the Respondents, Respondents shall obtain all necessary access agreements. In the event that within thirty (30) days after using their best efforts Respondents are unable to obtain such agreements, Respondents shall immediately notify U.S. EPA, and U.S. EPA may then, at its discretion, assist Respondents in gaining access, to the extent of its authority, and as provided by appropriate U.S. EPA guidance.

B. Respondents shall provide access to the Facility to U.S. EPA employees, contractors, agents, and consultants, as well as to representatives of the IEPA, at all reasonable times, and shall permit such persons to be present and move freely about the area in order to conduct inspections, take samples, and to conduct other activities which the Agencies determine to be necessary. Respondents shall ensure that U.S. EPA and IEPA personnel and authorized representatives are allowed to oversee

all remedial activities, and are granted access to the laboratory(ies) and to the records of the laboratory(ies) utilized by the Respondents for analyses required under the Work Plan.

C. The Respondents shall make available to U.S. EPA and IEPA the results of all sampling and/or test or other data generated by the Respondents with respect to the implementation of this Administrative Order, and shall submit these results in monthly progress reports as described in Section IX of this Administrative Order.

D. At the request of U.S. EPA, the Respondents shall allow split or duplicate samples to be taken by U.S. EPA, IEPA and/or their authorized representatives, of any samples collected by the Respondents pursuant to the implementation of this Administrative Order. The Respondents shall notify U.S. EPA and IEPA not less than fourteen (14) calendar days in advance of any sample collection activity. In addition, U.S. EPA and IEPA, in accordance with applicable law, have the right to take any additional samples that U.S. EPA or IEPA deems necessary.

VIII. PROGRESS REPORTS

A. The Respondents shall provide to U.S. EPA and IEPA written monthly progress reports which: (1) describe the actions which have been taken toward achieving compliance with this Administrative Order during the previous month as well as such actions, data and plans which are scheduled for the next month; (2) include all results of sampling and tests and all other data received by the Respondents during the course of the Work; (3) include all plans and procedures completed under the RD/RA Work Plan during the previous month; and (4) include sections detailing anticipated problems/recommended solutions, problems encountered/resolved, deliverables submitted, upcoming events/activities planned, key personnel changes, and scheduling. These progress reports are to be submitted to U.S. EPA and IEPA by the tenth (10) calendar day of every month following the effective date of this Administrative Order.

B. If the date for submission of any item or notification required by this Administrative Order falls upon a weekend or federal holiday, the time period for submission of that item or notification is extended to the next working day following the weekend or holiday.

C. Upon the occurrence of any event during the performance of the Work which, pursuant to Section 103 of CERCLA, requires reporting to the National Response Center, Respondents shall promptly orally notify the U.S. EPA Remedial Project Manager

("RPM"), or in the event of unavailability of the U.S. EPA RPM, the Emergency Response Branch, U.S. EPA Region V, in addition to the reporting required by Section 103. Within fourteen (14) calendar days of the onset of such an event, Respondents shall furnish to the U.S. EPA and IEPA a written report setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within thirty (30) calendar days of the conclusion of such an event, Respondents shall submit a report to U.S. EPA and IEPA setting forth all actions taken to respond to the event.

IX.

REMEDIAL PROJECT MANAGER/PROJECT COORDINATORS

A. U.S. EPA will designate a Remedial Project Manager ("RPM") and IEPA will designate a State Project Manager ("SPM") for the Facility, to observe and monitor the progress of any activity undertaken pursuant to this Administrative Order. The RPM shall have the authority lawfully vested in an RPM by the National Contingency Plan, 40 CFR Part 300, as amended and the SPM shall have the authority vested in a project manager by State law. The Respondents shall also designate a Project Coordinator who shall have primary responsibility for implementation of the work at the Facility.

B. To the maximum extent possible, except as specifically provided in this Administrative Order, communications between the Respondents and U.S. EPA concerning the terms and conditions of this Administrative Order shall be made between Respondents' Project Coordinator and the RPM.

C. Within seven (7) calendar days of the effective date of this Administrative Order, the Respondents shall provide written notice to the U.S. EPA RPM, the U.S. EPA Office of Regional Counsel, and IEPA in writing, of the name, address and telephone number of the designated Project Coordinator and an alternate Project Coordinator.

X.

RETENTION AND AVAILABILITY OF INFORMATION

A. The Respondents shall make available to U.S. EPA and IEPA, and shall retain during the pendency of this Administrative Order, and for six (6) years after termination of this Order, all records and documents in their possession, custody, or control which relate to the performance of this Administrative Order, including, but not limited to, documents reflecting the results of any sampling, tests, or other data or information generated or acquired by the Respondents or on behalf of the Respondents with respect to the Facility. At the conclusion of the six (6) year

period following termination of this Order, the Respondents shall provide written notice to the U.S. EPA RPM, the U.S. EPA Office of Regional Counsel, and IEPA, not less than ninety (90) calendar days prior to the destruction of such documents, and upon request by U.S. EPA or IEPA, the Respondents shall relinquish custody of the documents to U.S. EPA or IEPA.

B. The Respondents may assert business confidentiality claims covering part or all of the information provided in connection with this Administrative Order in accordance with Section 104(e)(7)(F) of CERCLA, 42 U.S.C. Section 9604(e)(7)(F), and pursuant to 40 CFR Section 2.203(b) and applicable State law.

C. Information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 CFR Part 2, Subpart B and, if determined to be entitled to confidential treatment under State law by IEPA, afforded protection under State law by IEPA. If no such claim accompanies the information when it is submitted to the U.S. EPA and/or IEPA, the public may be given access to such information without further notice to the Respondents.

D. Information acquired or generated by the Respondents in performance of the Work that is subject to the provisions of Section 104(e)(7)(F) of CERCLA, 42 U.S.C. Section 9604(e)(7)(F), shall not be claimed as confidential by the Respondents.

XI.

PENALTIES FOR NONCOMPLIANCE

The Respondents are advised, pursuant to Section 106(b) of CERCLA, 42 U.S.C. Section 9606(b), that willful violation or subsequent failure or refusal to comply with this Order, or any portion thereof, may subject the Respondents to a civil penalty of no more than \$25,000 per day for each day in which such violation occurs, or such failure to comply continues. Failure to comply with this Administrative Order, or any portion thereof, without sufficient cause may also subject the Respondents to liability for punitive damages in an amount equal to three (3) times the amount of any costs incurred by the U.S. EPA as a result of the Respondent's failure to take proper action, pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. Section 9607(c)(3).

XII.
OTHER CLAIMS

U.S. EPA and IEPA are not to be construed as parties to, and do not assume any liability for, any contract entered into by the Respondents in carrying out the activities pursuant to this Administrative Order. The proper completion of the Work under this Administrative Order is solely the responsibility of the Respondents.

XIII.
NOTICES

Whenever, under the terms of this Administrative Order, notice is required to be given, or a report or other document is required to be forwarded by one party to another, such correspondence shall be directed to the following individuals at the addresses specified below:

As to the United States or U.S. EPA:

Tom Jacobs
Assistant Regional Counsel
Attn: Cross Brothers
U.S. EPA, 5CS-TUB-7
230 South Dearborn
Chicago, IL 60604

Wendy L. Carney
Remedial Project Manager
Attn: Cross Brothers
U.S. EPA, 5HS-11
230 South Dearborn
Chicago, IL 60604

As to IEPA

Don Gimbel
IEPA Attorney
Attn: Cross Brothers
IEPA - Enforcement
1701 First Avenue
Maywood, IL 60153

Steve Washburn
Project Manager
Attn: Cross Brothers
IEPA - DLPC
2200 Churchill Road
Springfield, IL 62706

XIV.
CONSISTENCY WITH NATIONAL CONTINGENCY PLAN

The U.S. EPA has determined that the Work, if properly performed as set forth in Section V hereof, is consistent with the provisions of the National Contingency Plan pursuant to 40 CFR 300 et seq.

XV.

RESERVATION OF RIGHTS

A. Nothing contained herein shall be construed to prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Administrative Order, or from taking the legal or equitable action it deems appropriate and necessary, or from requiring the Respondents in the future to perform additional activities pursuant to CERCLA, 42 U.S.C. Section 9601 et seq., or any other applicable law.

B. U.S. EPA reserves, among other rights, its right to bring an action against Respondents pursuant to Section 107 of CERCLA, 42 U.S.C. Section 9607, for recovery of any costs incurred by U.S. EPA in connection with the Cross Brothers Pail Recycling Facility, including but not limited to U.S. EPA's costs in overseeing Respondents' implementation of the Work required by this Order.

C. IEPA reserves its right to bring an action against Respondents pursuant to Illinois State law for recovery of any costs incurred by IEPA in connection with the Cross Brothers Facility.

XVI.

MODIFICATION

Except as provided for herein, there shall be no modification of this Administrative Order without written approval of U.S. EPA.

XVII.

EFFECTIVE AND TERMINATION DATES

A. This Administrative Order shall be effective twenty-one (21) calendar days after the signature date on this Order unless a conference is requested as provided herein. If a conference is requested, this Order shall be effective on the tenth (10th) calendar day following the day of the conference.

B. When the Respondents determine that they have completed the Work, they shall submit to U.S. EPA and IEPA a Notification of Completion. Upon receipt of such Notification, U.S. EPA and IEPA shall schedule final inspections and close out activities as described in U.S. EPA's Superfund Remedial Design and Remedial Action Guidance, June 1986. Such activities shall include, at a minimum, the following:

- 1) "Prefinal Construction Conference" by U.S. EPA, IEPA and the Respondents;
- 2) "Prefinal Inspection" by U.S. EPA and IEPA;
- 3) Preparation of a "Prefinal Inspection Report" by the Respondents; and
- 4) "Final Inspection" by U.S. EPA, IEPA, and the Respondents.

The final remedial action report shall summarize the work performed, any modification to the RD/RA Work Plan, and the performance levels achieved. The summary shall include or reference any supporting documentation.

Upon receipt of the final remedial action report, U.S. EPA and IEPA shall review the report and any other supporting documentation and conduct any appropriate site inspection. U.S. EPA shall issue a Certification of Completion upon its determination that the Respondents have satisfactorily completed the work and have achieved standards of performance required under this Administrative Order.

XVIII.

ACCESS TO ADMINISTRATIVE RECORD

The Section 106 Administrative Record supporting the above Findings of Fact and Determinations is available for review on weekdays between the hours 8:00 a.m. and 5:00 p.m., at the U.S. EPA, Region V, 230 South Dearborn Street, Chicago, Illinois 60604. Please contact Tom Jacobs, Assistant Regional Counsel at (312) 353-7448, for review of the Section 106 Administrative Record at this location. The 106 Administrative Record is also available for review at the Kankakee Public Library, 304 South Indiana Avenue, Kankakee, Illinois.

XIX.

OPPORTUNITY TO CONFER

With respect to the actions required above, Respondents may within fourteen (14) calendar days of the signature date on this Order, request a conference with U.S. EPA to discuss this Order and its applicability to them. Any such conference shall be held within five (5) calendar days from the date of the request. If any Respondent desires such a conference, the Respondent shall contact Mr. Tom Jacobs, Assistant Regional Counsel, at (312) 353-7448.

Any comments which you have regarding this Order, its applicability to you, the correctness of any factual determinations upon which the Order is based, the appropriateness of any action which you are ordered to undertake, or any other relevant and material issue must be reduced to writing and submitted to U.S. EPA within five (5) calendar days following the conference or if no conference within fourteen (14) calendar days of the signature date on this Administrative Order. Any such writing should be directed to Tom Jacobs, at the address cited above, and copied to the IEPA.

Respondent shall provide notice in writing to Tom Jacobs, at the address cited above, stating its intentions to comply with the terms hereof. Such notice shall be received by U.S. EPA on or before the effective date of this Administrative Order. In the event any Respondent fails to provide such notice, said Respondent shall be deemed not to have complied with the terms of this Administrative Order.

Respondents are hereby notified that U.S. EPA will take any action pursuant to Section 106(a) of CERCLA, 42 U.S.C. Section 9606(a), which may be necessary in the opinion of U.S. EPA for the protection of public health or welfare or the environment, and Respondents may be liable under Section 107(a) of CERCLA, 42 U.S.C. Section 9607(a), for the costs of these government actions.

IT IS SO ORDERED:

BY:

David A. Alquist
Basil G. Constantelos

DATE:

2/8/90

for
Director, Waste Management Division
U.S. EPA, Region V

EFFECTIVE DATE:

APPENDIX I
CROSS BROTHERS PAIL RECYCLING SITE
RECORD OF DECISION

Page No. 1
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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Cross Bros. IRM	WRuddy - USEPA		
Consent Agreement for Removal or Remedial Action		00/00/00	2
Community Relations Responsiveness Summary		00/00/00	4
Community Relations Plan for RI/FS at Cross Bros.		00/00/00	8
Emergency Action Plan		00/00/00	10
Remedial Response Fact Sheet	IEPA	00/00/00	13
Draft - Summary of Remedial Alternative Selection		00/00/00	13
Draft - Summary of Remedial Alternative Selection		00/00/00	19
Cooperative Agreement Scope of Work		00/00/00	45
Memo to file re: Inspection and sample taking at Cross Bros.		80/07/26	4
Memo to file re: Site visit to begin scrap separation and removal operations	CGebien - IEPA	80/09/23	17
Memo to file re: Visit to site 10/07/80 to locate and plot previously undisclosed waste trenches (map showing locations attached)	CGebien - IEPA	80/10/09	2
Letter to R.L. Vaughns, Atty for James Cross, re: Permits to cleanup and dispose of waste materials	KPBechely - IEPA	80/10/22	2
Potential Hazardous Waste Site Identification	MMott - USEPA	80/11/25	4
Memo to file re: Analysis of private wells	CGebien - IEPA	80/11/26	4
Memo to file re: Site	KPierard - IEPA	80/12/04	4

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Visits 11/18-20/80			
Hazardous Material Enforcement and Response Program		81/05/00	2
Final Strategy Determination	SRogers - USEPA	81/07/09	1
A Hydrogeologic Study of Pembroke - Cross Bros. Site	RBStJonn - IEPA	81/08/00	80
Memo to W.Child, IEPA, re: Conference call on Site Status Report	CGebien - IEPA	81/08/05	2
Site Inspection	Ecology & Environment	82/09/03	14
Feasibility Assessment for Remedial Cleanup at Cross Bros. Site	IEPA	82/10/05	11
Notes of telephone call with C.Gebien - IEPA re: Documentation of Generator Information	JPankanin - USEPA	82/11/19	1
Request to Voluntarily Undertake Cleanup Activities; Letters to the following companies:	BGConstantelos - USEPA	82/12/08	2
Inmont Corporation			
E.I. DuPont			
Sun Chemical Corporation			
Reichhold Chemicals, Inc.			
Central Solvents and Chemicals Co.			
Container Corp. of America			
James Cross			
Martin Senour Corporation			
Graphic Color Company			
Alcan Aluminum Corporation			

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Acme Printing Ink Company			
Bagcraft Corp. of America			
Abner Cross			
Roberts and Porter, Inc.			
A & B Container Corp c/o Anthony Drobot			
Glidden Coatings and Resins, Division of SCM Corp.			
Letter to JPankanin - USEPA re: Response of Chemcentral to Request to Voluntarily Undertake Cleanup Activities	McDermott, Will & Emery	82/12/17	2
Letter to JPankanin - USEPA re: Response of Graphic Color Corp. to Request to Voluntarily Undertake Cleanup Activities	Graphic Color Corp.	82/12/20	1
Preliminary Assessment	Ecology & Environment	82/12/20	5
Letter to JPankanin - USEPA re: Response of Reichhold Chemicals to Request to Voluntarily Undertake Cleanup Activities	Madden - Reichhold Chemicals	82/12/21	2
Letter to BGConstantelos - USEPA re: Response of Roberts and Porter to Request to Voluntarily Undertake Cleanup Activities	REWhite - Roberts & Porter	83/01/04	1
Letter to BGConstantelos USEPA re: Response of United Technologies Inmont to Request to Voluntarily Undertake Cleanup Activities	DLKuta - Inmont	83/01/05	2
Letter to JPankanin - USEPA re: Response of DuPont to Request to Voluntarily Undertake Cleanup Activities	DTModi - DuPont	83/01/05	2

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Letter to JPankanin - USEPA re: Response of Alcan Aluminum to Request to Voluntarily Undertake Cleanup Activities	LASalibra - Alcan.	83/01/06	1
Letter to JPankanin - USEPA re: Response of CCA to Request to Voluntarily Undertake Cleanup Activities	RCobb - CCA	83/01/06	1
News Release: Superfund Monies Awarded for Cross Bros. Site Cleanup Study		83/01/11	2
Letter to JPankanin - USEPA re: Response of Acme Printing to Request to Voluntarily Undertake Cleanup Activities	JFWarchall - Sidley & Austin	83/01/13	2
Letter to JPankanin - USEPA re: Response of Acme Printing to Request to Voluntarily Undertake Cleanup Activities	DRWamsley - Sherwin Williams	83/01/14	2
Letter to M.A.Gade - USEPA re: Response of Chemcentral to Request to Voluntarily Undertake Cleanup Activities	McDermott, Will & Emery	83/01/17	4
Letter to M.A.Gade - USEPA re: Response of Graphic Color to request to Voluntarily Undertake Cleanup Activities	BABirnoorf	83/01/18	1
Letter to B.G.Constantelos - USEPA re: Response of Sun Chemical to Request to Voluntarily Undertake Cleanup Activities	ARSkupp - Sun Chemical	83/01/24	1
Memo to M.A.Brown - USEPA re: Authorization to Proceed with RI/FS at Cross Bros. Site	WHedeman - USEPA	83/02/07	4
Memo to W.N.Hedeman - USEPA re: Decision Memorandum, Cooperative Agreement Application	WAdamkus - USEPA	83/03/17	2
Community Relations Plan	IEPA	83/04/25	10

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Deposition of James Cross		83/05/04	63
Court Order Allowing Defendants to repair, patch and paint pails and/or drums that contain no hazardous waste at Cross Bros. Site	JMichela - Circuit Judge	83/07/08	10
Memo to B.Seltzer - IEPA re: Court Order Allowing Resumption of Limited Operations	GMichaud - IEPA	83/07/25	1
Letter to M.Lowe, Atty for Cross Bros., re: Notice of Violation	SLevine - IEPA	83/07/28	2
Letter to PWillman, Office of Attorney General, re: Court Order of 7/8/83 (1st page only)	IEPA	83/07/29	1
Memo to file re: Test Pitting at Cross Bros.	MHaney & DHelmars - IEPA	83/08/22	3
Community Relations Summary Cross Bros. Reclamation Site	IEPA	83/10/00	2
Remedial Investigation Feasibility Assessment for Remedial Cleanup at Cross Bros. Site	D'Appolonia	83/10/13	198
Quality Assurance/Quality Control Plan Feasibility Assessment for Remedial Cleanup Cross Bros. Site	D'Appolonia	83/12/15	101
Request for Information pursuant to Section 104 and Letters to the following companies: Glidden Coatings & Resins Division of SCM Corp. United Coatings, Inc.	BGConstantelos - USEPA	84/01/06	3

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Sun Chemical Corp.			
Steel Container Corp. d/b/a Calumet Container			
Specialty Coatings Co.			
Sherwin Williams			
Reichhold Chemicals			
Roberts & Porter, Inc.			
Frederick H. Levey Co.			
United Technologies Inmont			
Graphic Color Corp.			
Abner Cross			
Chemcentral Corp.			
Bagcraft Corp.			
Alcan Aluminum Corp.			
Acme Printing Ink Co.			
James Cross			
CCA			
DuPont de Nemours & Co.			
A & B Container Corp.			
Response of Roberts & Porter to Request for Information	REWhite - Roberts & Porter	84/01/07	2
Letter to RGrimes - USEPA re: Response of Reichhold Chemical to Request for Information	TRMadden - Reichhold Chemical	84/01/24	3
Letter to RGrimes - USEPA re: Response of Acme Printing Ink to Request for Information	JFWarchall - Sidley & Austin	84/02/06	2
Letter to RGrimes - USEPA re: Response of United Coatings	RAMantynband - Atty for United Coatings	84/02/06	3

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
to Request for Information			
Letter to RGrimes - USEPA re: Certification of never having done business with Cross Bros.	VJLattan - Acme Printing	84/02/09	1
Letter to RGrimes - USEPA re: Response of DuPont to Request for Information	MMooney - DuPont	84/02/09	3
Response of Graphic Color to Request for Information	DMcNeil - Graphic Color	84/02/09	55
Letter to RGrimes - USEPA re: Response of Inmont to Request for Information	RMBianchfield - Inmont	84/02/10	7
Letter to B.G.Constantelos - USEPA re: Response of Specialty Coatings to Request for Information	KMRuthenberg - Sonnenschein Carlin et al	84/02/13	37
Letter to RGrimes - USEPA re: Partial Response of SCM to Request for Information	RHSuzuki - SCM & Rooks, Pitts et al	84/02/15	32
Letter to RGrimes - USEPA re: SCM Completing Partial Response to Request for Information	DLaswell - Rooks, Pitts Fullagar & Poust	84/02/17	2
Letter to RGrimes - USEPA re: Response of CCA to Request for Information	RCobb - CCA	84/03/08	2
Letter to RGrimes - USEPA re: Response of Sherwin Williams to Request for Information	CMChadd - Pope Ballard Shepard & Fowle	84/03/12	192
Letter to RGrimes - USEPA re: Response of Anthony Drobot to Request for Information	LCRane - Atty for ADrobot	84/03/14	1
Letter to RGrimes - USEPA re: Response of Bagcraft Corp. to Request for Information	JMeister - Bagcraft Corp.	84/04/05	3
Letter to RGrimes - USEPA re: Response of Sun Chemical to Request for Information	Skupp & Andrzejewski - Sun Chemical	84/04/10	3

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Memo to D.Haschenmeyer - IEPA re: Modification of Court Order	GMichaud - IEPA	84/04/23	1
Letter to RGrimes - USEPA re: Response of Chemcentral to Request for Information	LMRundio - McDermott, Will & Emery	84/05/18	65
Feasibility Study Remedial Action Cross Bros. Site	D'Appolonia	84/06/00	72
Letter to BGConstantelos - USEPA re: Response of Cities Service to Request for Information	CPMai - Cities Service	84/07/26	2
Fact Sheet #3 Cross Bros. Site Cleanup Proposals	IEPA	84/08/00	3
Memo to JFrank - IEPA re: Decision Memo for Remedial Action at Cross Bros. Site	DFavero - IEPA	84/08/02	8
Memo to WMSanders - USEPA re: Request for Priority I CERCLA Drinking Water Analyses	BGConstantelos - USEPA	84/08/30	3
Letter to RGrimes - USEPA re: Response of Inmont to Request for Information	RMBianchfield - Inmont	85/01/24	2
Letter to RGrimes - USEPA re: Response of Chemcentral to Request to Voluntarily Undertake Cleanup Activities	LMRundio - McDermott, Will & Emery	85/01/28	2
Letter to RGrimes - USEPA re: Response of CCA to Request to Voluntarily Undertake Cleanup Activities	RCobb - CCA	85/01/29	1
Letter to RGrimes - USEPA re: Response of Cities Service to Request for Information	CPMai - Cities Service	85/02/06	2
Memo to J.W.McGraw - USEPA re: Amendment to Region V FY86 SCAP	WVAdamskus - USEPA	85/02/13	1
Agenda and Backup Material	USEPA	85/02/14	69

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CROSS BROTHERS - IL

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for Meeting re Cross Bros. Site - 2/14/85			
Site Assessment for Cross Bros.	Weston Sper	85/03/00	31
Memo to T. Mateer re: Cross Bros. Fund Financed State Lead	NMeldgin - USEPA	85/03/20	1
Record of Decision (ROD) for Initial Remedial Measures at the Cross Bros. Site	USEPA	85/03/25	16
Memo to file re: Meeting with PRP's for Cross Bros. Site	RGrimes - USEPA	85/03/26	2
Cross Bros. Immediate Removal Project - Schedule of Drawings showing site locations	IEPA	85/07/00	8
Status Report Weeks of 7/1-12/85 with cover letter	JLarsen - IEPA	85/07/11	2
Letter to W. Radlinski - IEPA re: Continuation of Cross Bros. Cleanup as part of Illinois Cleanup Program	KDYeates - USEPA	85/10/04	2
IEPA Record of Decision Cross Bros. immediate Removal	IEPA	85/11/00	68
Letter to JLarsen - IEPA re: Site Inspection 10/30/85	DMCaplice - USEPA	85/11/15	2
Letter to M. Lowe, Atty for James Cross, re: Present Site Conditions	JLarsen - IEPA	85/11/27	2
Hydrogeologic/Feasibility Study - Scope of Work	IEPA	86/01/00	40
Memo to JLarsen - IEPA re: Review of Scope of Work Hydrogeologic RI/FS (Draft)	MCollins & GPeyton - ISWS	86/02/00	6

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TITLE	AUTHOR	DATE	PAGES
Letter to JLarsen - IEPA re: Revised Soil Sampling Procedure for Cross Bros. Site	KEBrown - Metcalf & Eddy	86/03/12	5
Project Outline and Proposal Report (POPR) for Hydrogeologic/Feasibility Study at the Cross Bros. Site	Metcalf & Eddy	86/03/14	118
Letter to James Cross re: Progress of Hydrogeologic and Feasibility Study	JLarsen - IEPA	86/04/02	2
Letter to W. Ruddy - USEPA re: Schedule for geophysical survey work	JLarsen - IEPA	86/05/01	2
Technical Memorandum on Review of Existing Site Information for Hydrogeologic/Feasibility Study at Cross Bros. Site	Metcalf & Eddy	86/05/21	160
Memo to Distribution re: Cross Bros. Meeting 5/30/86 Notes on planning meeting for geophysical survey	SSmith - Metcalf & Eddy	86/06/04	2
Memo to W. Ruddy - USEPA re: Cross Bros. Sampling Plan	DFavero - USEPA	86/06/13	2
Letter to JLarsen - IEPA re: Review of Tech Memo and Sampling Plan	MCollins - ISWS	86/06/17	3
Letter to JLarsen - IEPA re: Progress Report for May 1986	TLKrause - Metcalf & Eddy	86/06/24	4
Cross Bros. - IEPA's Community Relations efforts	MMcCue - USEPA	86/07/02	1
Memo to T. Geischecker - USEPA re: QAPP Review	JHAdams - USEPA	86/07/23	6
Memo to W. Ruddy - USEPA re: Cross Bros. Geophysical Survey	JJursic - USEPA	86/07/25	6
Memo to W. Ruddy - USEPA re: Trip Report - Seismic	MVendl - USEPA	86/07/25	60

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CROSS BROTHERS - 1L

TITLE	AUTHOR	DATE	PAGES
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QAPP Review with cover letter	USEPA	86/07/28	7
Health and Safety Plan for Hydrogeologic/Feasibility Study at Cross Bros. Site	Metcalf & Eddy	86/08/29	19
Letter to JLarsen - IEPA re: Progress Report for July and August 1986	TLKrause - Metcalf & Eddy	86/09/17	4
Letter to JLarsen - IEPA re: Notes of meeting 9/30/86	WRuddy - USEPA	86/10/03	2
Memo to W. Ruddy - USEPA re: Review of Cross Bros. RI/FS Work Plan	DYeskis - USEPA	86/10/06	3
Letter to W. Radlinski - IEPA re: Comments to QAPP and Sampling Plan	USEPA	86/10/06	5
Memo to JLarsen - IEPA re: Pembroke/Cross Bros. Residential Well Analyses	RTurpin - IEPA	86/10/08	1
Memo to G. Vanderlaan - USEPA re: QAO QAPP Review	JHAdams - USEPA	86/10/17	5
Sampling Plan for Hydrogeologic/Feasibility Study at the Cross Bros. Site	Metcalf & Eddy	86/10/22	43
Memo to file re: Notes of Conference Call Cross Bros. QAPP	WRuddy - USEPA	86/10/28	2
Letter to JLarsen - IEPA re: Progress Report for September 1986	TLKrause - Metcalf & Eddy	86/11/07	6
Transmittal to K. Yeates - USEPA re: Attachment 1 to Health and Safety Plan	CHunter - IEPA	86/11/21	3
Letter to W. Radlinski - IEPA re: Lab certification	KDYeates - USEPA	86/12/18	1
Letter to JLarsen - IEPA re:	WRuddy - USEPA	87/01/14	2

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TITLE	AUTHOR	DATE	PAGES
Lack of lab certification			
QAPP for Hydrogeologic/ Feasibility Study at the Cross Bros. Site	Metcalf & Eddy	87/01/14	183
Letter to JLarsen - IEPA re: Progress Report for November 1986	TLKrause - Metcalf & Eddy	87/01/16	6
Letter to James Cross re: Status of Hydrogeologic Study and Planned Site Visit	JLarsen - IEPA	87/02/02	2
Information Packet for PRP meeting in Chicago on 3/26/87	IEPA	87/03/00	87
Notice to PRP's of Cross Bros. Site Meeting	DGimbel - IEPA	87/03/05	4
PRP Notice Letter	WChild - IEPA	87/03/05	9
Letter to D.DeNiro - Metcalf & Eddy re: Testing of wells constructed of PVC material	JLarsen - IEPA	87/03/13	1
Letter to C.Nolan - USEPA re: Cancellation of groundwater samples from wells constructed of PVC material	TGayers - IEPA	87/03/30	2
Letter to JLarsen - IEPA re: Progress Report for December 1986	TLKrause - Metcalf & Eddy	87/04/06	4
Letter to JLarsen - IEPA re: Progress Report for January 1987	TLKrause - Metcalf & Eddy	87/04/06	3
Letter to JLarsen - IEPA re: Progress Report for February 1987	TLKrause - Metcalf & Eddy	87/04/22	3
Letter to JLarsen - IEPA re: Progress Report for March 1987	TLKrause - Metcalf & Eddy	87/05/11	4
Letter to W.Child - IEPA re: Reply of Monsanto to PRP Notice Letter	SPKrchma - Monsanto	87/06/03	2

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CROSS BROTHERS - IL

TITLE	AUTHOR	DATE	PAGES
Letter to D.DeNiro - Metcalf & Eddy re: Statement of Work for Feasibility Study at Cross Bros.	JLarsen - IEPA	87/06/10	9
Memo to file re: Pre-QAPP meeting summary for the Cross Bros. Site	WRuddy - USEPA	87/06/25	2
Letter to JLarsen - IEPA re: Progress Report for May 1987	TLKrause - Metcalf & Eddy	87/06/25	3
Letter to D.DeNiro - Metcalf & Eddy re: Technical Meeting of 6/22/87	JLarsen - IEPA	87/06/26	3
Memo to T.Geishecker - USEPA re: Review of QAPP for the Hydrogeological/Investigation Phase II Activity at Cross Bros. Site	JHAdams - USEPA	87/07/28	2
Letter to JLarsen - IEPA re: Progress Report for June 1987	TLKrause - Metcalf & Eddy	87/07/28	4
Letter to D.DeNiro - Metcalf & Eddy re: Sample Borings at Cross Bros. Site	JLarsen - IEPA	87/08/05	2
Letter to W.Radlinski - IEPA re: Letter of Acceptance to revise Phase II Scope of Work	KDYeates - USEPA	87/08/13	2
Letter to J.Larsen - IEPA re: Revision No.1 to QAPP Revision No.1	TLKrause - Metcalf & Eddy	87/08/14	3
QAPP Addendum No. 1 for the Hydrogeologic/Feasibility Study at Cross Bros. Site	Metcalf & Eddy	87/08/14	48
Memo to T.Geishecker - USEPA re: Approval of Addendum QAPP for the Hydrogeologic/Feasibility Study	USEPA	87/08/21	6
Letter to W.Radlinski - IEPA re: Review and Approval of	USEPA	87/08/24	6

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TITLE	AUTHOR	DATE	PAGES
QAPP revised Addendum #1 for the Hydrogeologic/Feasibility Study at Cross Bros. Site			
Letter to JLarsen - IEPA re: Progress Report for July 1987	TLKrause - Metcalf & Eddy	87/08/31	4
Letter to J.A.Larsen - IEPA re: Start of Phase II Drilling	TLKrause - Metcalf & Eddy	87/09/02	1
Letter to T.L.Krause - Metcalf & Eddy re: Stopping of Task 3 Phase II Field Effort	JLarsen - IEPA	87/09/09	2

ADMINISTRATIVE RECORD INDEX: UP-DATE #1
Cross Brothers Site
Pembroke Township, IL

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCNUMBER
3	88/02/23	Letter stating that during week of 2/15-19/88, second phase of groundwater and soil sampling was conducted; because of documented evidence that hazardous substances exist on site, a health risk for owner and employees is present; relocation is proposed	J.Larson, IEPA	M.Lowe, Esquire	Correspondence	1	
2	88/03/01	Letter listing recently completed activities at the site(a schedule from the IEPA/USEPA Cooperative Agreement)	J.Larson, IEPA	A.VanNorman	Correspondence	2	
2	88/09/08	Letter stating that on-site activities are near completion; a pump-test well will be installed on 9/26,27,28/88	J.Larson, IEPA	J.Cross	Correspondence	3	
1	88/10/03	Letter stating that IEPA and USEPA intend to share the validated soil and water analytical data	J.Larson, IEPA	A.VanNorman	Correspondence	4	
11	88/07/07	Memo re:Ground Penetration Radar Survey at the Cross Brothers Site, Pembroke Township, IL (summary of ground penetrating radar survey)	M.Vendl, USEPA	W.Ruddy, USEPA	Memorandum	5	

ADMINISTRATIVE RECORD INDEX: UP-DATE #2
Cross Brothers Site
Pembroke Township, IL

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCNUMBER
230	89/04/00	Hydrogeological Study, Vols. I and II	Metcalf&Eddy	IEPA/USEPA	Reports/Studies	1	
187	89/07/00	Feasibility Study	Metcalf&Eddy	IEPA/USEPA	Reports/Studies	2	
15	89/07/26	Proposed Plan	IEPA/USEPA		Reports/Studies	3	

ADMINISTRATIVE RECORD INDEX: UP-DATE #3
Cross Brothers Site
Pembroke Township, IL

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE	DOCNUMBER
1	89/07/12	Letter Transmitting USEPA's Model Consent Decree	R. Grimes, USEPA	A. Perellis, Attorney	Correspondence		
7	89/06/13	General Notice Letter	M. Niedergang, USEPA	PRPs	Correspondence		
26	89/07/26	Letter re: Special Notice pursuant to 122(e) of CERCLA	M. Niedergang, USEPA	PRPs	Correspondence		
6	89/08/24	Letter re: Comments on Hydrogeological Study/ Feasibility Study and proposed plan	A.V. Norman, CRA Consulting Engineers	W. Carney, USEPA	Correspondence		
81	89/08/21	Transcripts of Public Hearing of Cross Brothers/Pembroke Township Superfund Site and Hydrogeological Study/Feasibility Study held 8/21/89	J. Fuehrmeyer, Court Reporter		Meeting Notes		
6	89/03/31	Pembroke/Cross Brothers Site Alternative Array Document	Metcalf & Eddy, Inc./ Engineers	IEPA	Reports/Studies		
74	89/09/28	Record of Decision with Responsiveness Summary for Cross Brothers Pail Recycling Pembroke Township, Illinois	V. Adankus, USEPA		Reports/Studies		

CROSS BROTHERS: LIABILITY INDEX

RESPONDENT: James D. Cross

<u>Date</u>	<u>Title</u>	<u>Author</u>	<u>Recipient</u>	<u>Document Type</u>
1/20/70	Trustee Deed	LaSalle National Bank	James, Mary & Abner Cross	Lot 19 Point Plaza Subdivision
9/24/73- 7/20/78	Response to 104 Request	J. Cross	R. Grimes U.S. EPA	Shipping Receipts Dirty Pails
10/20/80	Deed	LaSalle National Bank	James & Abner Cross	Lot 20
8/5/80	Affidavit	L. Sullivan Employee of Cross Brothers		Site Operation
8/7/80	Affidavit	J. Hurley IL EPA		Lab Findings
8/80	Affidavit	C. Gebien IL EPA		Site Inspection Made 7/23/80
8/80	Affidavit	K. Pierard		Site Inspection Made 7/23/80
8/12/80	Affidavit	W. Dixon IL Geological Society		Site Hydrogeology Appraisal
8/13/80	Affidavit	J. LaMotte Fire Dept. Chief		Fire Report 4/24/77
10/6/82	Affidavit	J. Stofferhan IL EPA		Site Inspection 9/12/82
10/6/82	Affidavit	J. Carey IL EPA		Site Inspection 9/30/82
10/6/82	Affidavit	K. Becheley IL EPA		Permit Search

<u>Date</u>	<u>Title</u>	<u>Author</u>	<u>Recipient</u>	<u>Document Type</u>
9/12/82	Memorandum	C. Licht CLEA	James Cross	Site Operation

RESPONDENT: Sherwin-Williams Company

<u>Date</u>	<u>Title</u>	<u>Author</u>	<u>Recipient</u>	<u>Document Type</u>
3/12/84	Response to 104 Request	C. Chadd Att. for S-W. Co.	R. Grimes U.S. EPA	182 pgs. of misc. documents (5 exhibits)

EXHIBIT # 1 (pages 1-79)

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
4/14/75- 12/10/78	Vouchers (approx. 20)	Martin- Senour Co.	Pembroke Service
2/26/76- 11/9/78	Shipping Orders: Dirty Drums (approx 21)	"	"
8/19-71 7/79	Notes: # of drums	"	"
10/75- 11/9/78	Invoice/ Statement (approx. 18)	Pembroke Service	Martin- Senour Co.
None (pgs 74-79)	Paint brochure	Martin- Senour Co.	UNK

EXHIBIT #2 (pages 80-93)

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
UNK	Written Statement	F. Robinson Employee of Cross	

EXHIBIT #3 (pages 94-156)

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
7/8/83	Discovery Deposition	James Cross	

EXHIBIT # 4 (pages 157-67)

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
7/26/80	Memorandum	IL EPA	File
10/10/83	Intra-company Correspondence Cross Bro.	S. Fryzel S-W. Co.	F. Gaugush S-W. Co.
10/26/79	Intra-company Correspondence (5 gal. empty cans)	J. Mitidiero Secur. Superv. S-W Co.	S. Fryzel S-W Co.

EXHIBIT # 5 (pages 168-182)

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
12/5/80	Memorandum S-W's Manifest Compliance Inspection	C. Gould IL EPA	File
12/4/80	Memorandum On Site Inspection 11/18-20/80	K. Pierard IL EPA	File

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
UNK	2 Pages of Notes (pgs 170-71)	UNK	UNK
1/14/83	Letter of Denial	D. Wamsley Att. S-W. Co.	J. Pankanin EPA Reg. V
12/21/82	Authorization to Disclose to PRP's	"	"
3/5/84	Response to Interrogatories	F. Gaugush S-W. Co.	

RESPONDENT: SCM Corp. (Glidden Co.)

<u>Date</u>	<u>Document Type</u>	<u>Author</u>	<u>Recipient</u>
1/19/78- 9/26/78	18 Customer's Invoices: Drums containing sludge	Glidden	Cross Pembroke Service
10/4/78	Notice of applying for Special Waste Permit	P. Rocco Glidden Plant Manager	K. Bechely IL EPA
1/16/81	Special Waste Disposal Application	"	IL EPA
UNK	Letter Accompanying Generator Waste Information Form	C. Cowhey Land & Lakes Co. Permit Manager	Glidden
5/14/81	Generator Waste Information Form	P. Rocco Glidden Plant Manager	Land & Lakes
UNK	Notice of Waste Disposal at 134 & I 94	D. DeValk D & J Disposal	Glidden
2/13/84	Response to 104 Request	R. Suzuki SCM Corp.	US EPA Region V

APPENDIX III

CROSS BROTHERS PAIL RECYCLING SITE

**SUMMARY OF THE RANGE AND FREQUENCY OF
GROUNDWATER AND SOIL CONTAMINANTS**

TABLE 1
RANGE AND FREQUENCY OF ORGANIC CONTAMINANTS DETECTED IN SOIL

Contaminants Detected	Surface Soils Concentration Range (ug/kg)	Frequency of Detection	Deep Soils Concentration Range (ug/kg)	Frequency of Detection
VOLATILE ORGANICS				
Methylene Chloride	ND - 226000 B	1/26	ND - 46 B	13/30
Acetone	ND - 132000 B	2/26	ND - 110 B	13/30
2-butanone	ND - 9.3	1/26	ND - 64	2/30
c-1,3-dichloropropene	ND - 15.8	1/26	ND	0/30
Trichloroethene	ND - 500	2/26	ND - 2800 E	2/30
4-Methyl-2-Pentanone	ND	0/26	ND - 120	5/30
Tetrachloroethene	ND - 2400	6/26	ND - 1300	9/30
Toluene	ND - 95400	3/26	ND - 250000	9/30
Ethylbenzene	ND - 71900	1/26	ND - 580000 D	7/30
Total Xylenes	ND - 1270000	6/26	ND - 3700000 D	9/30
SEMI-VOLATILE ORGANICS				
2-methylnaphthalene	ND - 20600	2/26	ND - 17000 D	10/30
Isophorone	ND - 215000	2/26	ND - 2300	6/30
Naphthalene	ND - 126000	1/26	ND - 27000 D	9/30
Acenaphthene	ND	0/26	ND - 330 E	4/30
Fluorene	ND	0/26	ND - 94 E	3/30
Anthracene	ND	0/26	ND - 81 E	2/30
Di-N-Butylphthalate	ND - 1370	2/26	ND - 4900	13/30
Fluoranthene	ND	0/26	ND - 280 E	2/30
Pyrene	ND	0/26	ND - 260 E	5/30
Butylbenzylphthalate	ND - 1970	1/26	ND - 6300	9/30
bis(2-ethylhexyl)phthalate	ND - 1770	10/26	ND - 25000 D	20/30
3,3'-Dichlorobenzidene	ND - 13200	1/26	ND	0/30
Chrysene	ND	0/26	ND - 210 E	2/30
Benzo(a)Anthracene	ND	0/26	ND - 130 E	2/30
Di-N-Octylphthalate	ND	0/26	ND - 980	4/30
Benzo(b)Fluoranthene	ND	0/26	ND - 240 E	2/30
Benzo(k)Fluoranthene	ND	0/26	ND - 240 E	2/30
Benzo(a)Pyrene	ND	0/26	ND - 210 E	2/30
Indeno(1,2,3-CD)Pyrene	ND	0/26	ND - 39 E	1/30
Benzo(g,h,i)Perylene	ND	0/26	ND - 43 E	1/30
Benzoic acid	ND	0/26	ND - 180 E	2/30
Phenol	ND	0/26	ND - 540	3/30
2-Methylphenol	ND	0/26	ND - 1200	1/30
2,4-Dimethylphenol	ND	0/26	ND - 4300	2/30
Pentachlorophenol	ND	0/26	ND - 1300	3/30
Diethylphthalate	ND	0/26	ND - 51 E	2/30
Phenanthrene	ND	0/26	ND - 240 E	4/30
PESTICIDES/PCBs				
Arochlor-1242	ND - 887	1/26	ND - 110000	2/30
Arochlor-1248	ND - 1120	1/26	ND	0/30
Arochlor-1254	ND - 568	1/26	ND - 3900	1/30
Arochlor-1260	ND - 429	2/26	ND - 250	1/30
Heptachlor	ND - 9.8	1/26	ND	0/30

B - Indicates that the contaminant was also found in the blanks of all samples in which it is detected.

E - Reported concentrations are all estimated.

D - Diluted sample.

ND - Not Detected.

TABLE 2
RANGE AND FREQUENCY OF CONTAMINANTS DETECTED IN GROUNDWATER

Contaminants Detected	Monitoring Well Concentration Range (ug/kg)	Frequency of Detection	Private Well Concentration Range (ug/kg)	Frequency of Detection
VOLATILE ORGANICS				
Chloromethane	ND - 150 E	1/33	ND	0/22
Vinyl Chloride	ND - 1200	6/33	ND	0/22
Chloroethane	ND - 7 E	3/33	ND	0/22
Methylene Chloride	ND - 3900	4/33	ND	0/22
Acetone	ND - 2400 D	13/33	ND	0/22
1,1-dichloroethene	ND - 74 E	1/33	ND	0/22
1,1-dichloroethane	ND - 15 D	2/33	ND	0/22
1,2-dichloroethene (total)	ND - 1200	12/33	ND	0/22
Chloroform	ND - 3 E	2/33	ND	0/22
1,2-dichloroethane	ND - 6	1/33	ND	0/22
2-butanone	ND - 43	1/33	ND	0/22
1,1,1-trichloroethane	ND - 12	2/33	ND	0/22
Trichloroethene	ND - 24	3/33	ND	0/22
Benzene	ND - 24	11/33	ND	0/22
2-Hexanone	ND - 15	3/33	ND	0/22
4-Methyl-2-Pentanone	ND - 26.1	6/33	ND	0/22
Tetrachloroethene	ND - 14	4/33	ND	0/22
Toluene	ND - 14000	13/33	ND	0/22
Ethylbenzene	ND - 2300	8/33	ND	0/22
Total Xylenes	ND - 14000 D	8/33	ND	0/22
SEMI-VOLATILE ORGANICS				
Benzyl Alcohol	ND - 12	1/33	ND	0/22
2-methylnaphthalene	ND - 3 E	3/33	ND	0/22
Isophorone	ND - 70	13/33	ND	0/22
Naphthalene	ND - 110	6/33	ND	0/22
Di-N-Butylphthalate	ND - 4 E	10/33	ND	0/22
bis(2-ethylhexyl)phthalate	ND - 10 E	2/33	ND - 210	7/22
Benzoic acid	ND - 180	1/33	ND	0/22
2-Methylphenol	ND - 180	4/33	ND	0/22
2,4-Dimethylphenol	ND - 200	9/33	ND	0/22
4-methylphenol	ND - 120	8/33	ND	0/22
Pentachlorophenol	ND - 3 E	1/33	ND	0/22
INORGANICS				
Aluminum	ND - 1520	3/28	ND - 410	1/22
Antimony	ND - 60 E	1/28	ND	0/22
Arsenic	ND - 19	11/28	ND - 6	2/22
Barium	ND - 100	14/28	ND	0/22
Calcium	16400 - 85700	13/13	ND	0/22
Chromium	ND - 29	6/28	ND	0/22
Copper	ND - 12 E	1/28	ND - 137	4/22
Iron	ND - 21000	6/28	ND - 2300	12/22
Lead	ND - 48	18/28	ND - 14	11/22
Manganese	46.7 - 4680	15/15	ND - 1170	18/22
Magnesium	5610 - 16500	13/13	NA	NA
Potassium	5220 - 24600	13/13	NA	NA
Sodium	5170 - 8220	13/13	NA	NA
Zinc	ND - 48	3/13	ND	0/22
Nitrogen-Ammonia	ND - 4000	13/15	30 - 8500	22/22
Nitrogen-Total Kjeldahl	80 - 4380	15/15	40 - 9920	22/22

TABLE 2 (CONT'D)

B - Indicates that the contaminant was also found in the blanks of all samples in which it is detected.

E - Contaminant levels detected are all estimated concentrations.

D - Diluted sample.

ND - Not detected.

NA - Not analyzed.

APPENDIX IV

CROSS BROTHERS PAIL RECYCLING SITE

REMEDIAL DESIGN/REMEDIAL ACTION SCOPE OF WORK

**SCOPE OF WORK FOR REMEDIAL DESIGN/REMEDIAL ACTION
CROSS BROTHERS PAIL RECYCLING SITE
PEMBROKE TOWNSHIP, ILLINOIS**

Purpose

The purpose of this Remedial Action is to implement the Record of Decision for the Cross Brothers Pail Recycling site ("site"), which was signed by the U.S. EPA Regional Administrator and the IEPA Director on September 28, 1989. The U.S. EPA Superfund Remedial Design and Remedial Action Guidance, the final Record of Decision, the approved Remedial Design/Remedial Action (RD/RA) Work Plan and this Scope of Work, as well as any additional guidance provided by U.S. EPA, shall be followed in designing and implementing the Remedial Action at the Cross Brothers Pail Recycling site.

I. Description of the Remedial Action

The major components of the selected remedy include:

- Re-sampling of the localized PCB soil area to identify the existence of PCBs.
- If identified, remove the localized PCB-contaminated soil area and incinerate the soils at a TSCA approved incinerator.
- Install and maintain a groundwater collection system capable of capturing the groundwater contaminant plume.
- Install and maintain an on-site groundwater treatment facility to remove contaminants from the collected groundwater.
- Install and maintain a soil flushing system for the 3.5 acres of contaminated soil within the disposal area.
- Install and maintain a 6 inch vegetative cover over that portion of the disposal area not subject to the soil flushing operation.
- Monitor the groundwater collection/treatment system and the groundwater contaminant plume during groundwater remediation activities.
- Install and maintain a 6 inch vegetative cover over the 3.5 acre area subject to soil flushing upon terminating the soil flushing operation.

- o Install and maintain a fence around the site during remedial activities.
- o Initiate a deed notification identifying U.S. EPA and IEPA concerns regarding the conductance of intrusive activities at the site.

The above actions were described in detail in the Feasibility Study (FS) and restated in the Record of Decision (ROD). The above actions should be designed, implemented and maintained to achieve the following performance standards.

Remedial activities for the site shall begin with the owner of the site, James Cross, recording in accordance with state law a notation on the deed to the site property or some other instrument which is normally examined during a title search notifying any potential purchaser of the property of the existence of this Order. In addition, a notation identifying U.S. EPA and IEPA concerns regarding the conductance of intrusive activities at the site shall also be recorded on the deed to the site property or some other instrument which is normally examined during a title search. Any buildings left on-site will be demolished or removed in accordance with applicable laws, and a fence constructed around the site area. The remedial activities will involve two operable units: the localized PCB soil removal and the groundwater and soil remediation.

Prior to initiating the localized PCB soil removal, the area will be re-sampled to confirm the existence of PCBs in that area. If PCBs are identified to exist in that area above a 10 ppm performance standard, the soils will be removed. The PCB soil removal would involve excavating the soils and transporting the soils in accordance with applicable state and federal law to a TSCA approved facility for incineration.

The groundwater and soil remediation will be treated as one operable unit. The site can be divided into 2 areas: a 6.5 acre area that is characterized by small localized areas of soil contamination and a 3.5 acre area that contains contamination throughout the unsaturated zone. Initially, the 6.5 acre area shall be covered with a 6 inch vegetative cover, while the 3.5 acre area shall be covered by 6 inches of gravel. These areas are delineated on Figure 1.

Groundwater shall be extracted by a series of downgradient extraction wells and pumped back to a treatment facility on the site. The groundwater shall be treated and pumped into a system that will place the treated groundwater onto the 3.5 acre gravel area.

This system will establish a "cleansing loop". The groundwater will pass through the soil and pick up contaminants on its way back to the water table. The groundwater will then be captured by the extraction wells, treated and placed back on the site. This process will continue until the groundwater analyses consistently indicate that the groundwater cleanup standards have been achieved. The soil flushing operation should reduce the contaminant levels present in the soils to negligible levels.

The groundwater performance standards for the Cross Brothers Pail Recycling site require that treated groundwater meet the following two standards:

- o Currently promulgated MCLs; and
- o A cumulative excess lifetime cancer risk not exceeding 10^{-6} and a hazard index ratio ≤ 1 .

A risk assessment shall be performed to determine whether treated groundwater meets a cumulative excess lifetime cancer risk not exceeding 10^{-6} and a hazard ratio ≤ 1 . Any risk assessment performed pursuant to this Order shall conform with the Risk Assessment Guidance for Superfund: Human Health Evaluation Manual, July 1989.

It is estimated that it will take fifteen (15) years to achieve the groundwater performance standards and to reduce the contaminant levels present in the soils to negligible levels.

Once the groundwater performance standards are met, the fence, treatment system and irrigation equipment will be removed from the site, and a 6 inch vegetative cover placed on the area initially flushed.

II. Remedial Action

Completion of the Cross Brothers Pail Recycling remedial action, by the Respondents, shall proceed according to the following tasks.

Task 1 - Obtaining a Qualified Professional Engineer

Within 14 calendar days of the effective date of the Order Respondents shall pursuant to Section V.B. of the Order retain a qualified professional engineer.

Task 2 - Work Plan Development

Within 60 calendar days of the effective date of the Administrative Order, the Respondents shall submit a work plan providing for the preparation, submission and implementation, including a schedule, of the following plans (B through E below) to U.S. EPA and IEPA. U.S. EPA shall, in consultation with IEPA, review and approve/disapprove the plan. In addition, the work plan shall include specific information as well as guidelines and procedures on any geotechnical investigations (i.e. soil borings), hydrogeological investigations (i.e. pump tests) and pilot tests and/or bench scale studies (i.e. groundwater treatment) to be conducted.

A. Access

Respondents shall use their best efforts to obtain any access agreements required to implement the remedial action prior to the initiation of the design investigation or remedial action as necessary. Access shall extend for the duration of the clean-up and include allowances for all operation and maintenance considerations.

B. Quality Assurance and Quality Control

Respondents shall develop a site specific Quality Assurance Project Plan (QAPP), covering all phases of future site work, based upon guidance provided by U.S. EPA. The QAPP shall at a minimum include:

- o Project description
- o Project organization
- o Project responsibilities
- o Sampling and custody procedures
- o Calibration procedures
- o Quality assurance objectives
- o Analytical procedures
- o Data analysis and reporting
- o Internal QC checks
- o Performance and system audits
- o Preventative maintenance

- o Method specific procedures for assessing data precision, accuracy and completeness
- o Corrective actions
- o QA reports

The Respondents are required to attend a QAPP development meeting with U.S.EPA representatives prior to initiating QAPP development. The Respondents shall also submit a QAPP to U.S. EPA and IEPA for review. The Respondents shall incorporate required corrections and submit the revised QAPP for review and U.S. EPA approval.

C. Site Safety Plan

The Respondents shall develop a site specific safety plan which is designed to protect on-site personnel and area residents from physical, chemical and any other hazards posed by the remedial action.

The safety plan shall develop the performance levels and criteria necessary to address the following areas:

- o General requirements
- o Personnel
- o Levels of protection
- o Safe work practices and safe guards
- o Medical surveillance
- o Personal and Environmental air monitoring
- o Personal protective equipment
- o Personal hygiene
- o Decontamination - personnel and equipment
- o Site work zones
- o Contaminant control
- o Contingency and emergency planning
- o Logs, reports and record keeping

The safety plan shall follow U.S. EPA guidance and all applicable OSHA requirements. The Respondents shall submit a safety plan for U.S. EPA and IEPA review. The settling party shall incorporate any required corrections and submit a revised safety plan.

D. Sampling Plan

The Respondents shall develop a sampling plan describing all field activities for the collection and analysis of all samples, as well as any sampling necessary for construction activities. A sampling plan shall be submitted to U.S. EPA and IEPA for review. The Respondents shall incorporate any required corrections and submit the revised sampling plan for review and U.S. EPA approval.

E. Operation and Maintenance Plan

The O&M Plan shall be developed to ensure the safe and effective implementation of this remedy. The basic elements of the Plan shall include:

- o Normal Operation and Maintenance
 - Describe tasks for operation
 - Describe tasks for maintenance
 - Describe optimum treatment conditions
 - Present schedule
- o Potential Operation and Maintenance Problems
 - Describe potential sources of problems or failure
 - Present common remedies or alternatives
 - Describe information sources
- o Routine Monitoring and Testing
 - Present description of monitoring tasks detailed in the Sampling Plan
 - Present required Laboratory testing detailed in the Sampling Plan
 - Present required QA/QC to ensure proper system operation
 - Maintain daily operating logs and maintenance records
- o Long term Operation and Maintenance
 - Present task necessary to identify system shut down
 - Describe monitoring and testing results necessary for system shut down
 - Describe equipment replacement contingencies
 - Maintain daily operating logs and maintenance records
 - Retain all laboratory data and testing results
 - Present mechanism for reporting emergencies
 - Schedule reports to Agencies.

A generic O&M Plan shall be developed during the Remedial Design Phase. A specific O&M plan shall be developed during the remedial action phase. To ensure correlation with all design activities the generic O&M Plan shall be submitted with the 95% prefinal design package.

F. Miscellaneous

The work plan shall also provide for the preparation and submission of monthly reports, inspection reports, operation and maintenance reports and the Remedial Action Report and all other reports referenced in U.S. EPA Remedial Design and Remedial Action Guidance.

Task 3 - Remedial Design

Final construction plans and specifications for the Remedial Design shall be prepared to accomplish the remedial action defined in the ROD. The plans and specifications shall be of a method type which meets the objectives, cleanup levels and cleanup and performance standards discussed in the ROD and Section I of this Scope of Work.

The plans and specifications shall be developed in the following phases:

1. Initial Review - An initial design (30%) review shall be required to assure that the design has begun properly. This submittal, in accordance with the approved schedule, shall include drawings showing the anticipated layout, and schematic of the groundwater collection system and any on-site treatment facilities. A discussion on the type of automation anticipated, how the flow will be operated and the limits the treatment plant will be designed to meet shall also be included. A conceptual layout of the soil flushing operation should be included. A conceptual layout of the vegetative cover, as well as the groundwater monitoring network should be included. At this time, resampling of the localized PCB-contaminated soil area should be completed and the data submitted to U.S. EPA and IEPA for review. A determination will be made by U.S. EPA, in consultation with IEPA, within 21 calendar days whether excavation and incineration of these soils will be necessary. A separate section shall be added listing unresolved items or criteria required to complete the design period.

2. Intermediate Design - A design review shall be required at 60% completion of the design. This submittal, in accordance with the approved schedule, shall include the design analysis, plans and specifications.
3. Prefinal/Final Design - Prefinal/final design documents shall be submitted in two parts in accordance with the approved schedule. The first submission shall be at 95% completion of design (i.e., prefinal). After approval of the prefinal submissions, the required revisions shall be executed and the final documents shall be submitted 100% complete with the reproducible drawings and specifications ready for bid advertisement. This portion of the document package as submitted for prefinal/final design shall include but not be limited to the QAPP, SP, O&M plan, the design analysis, final construction drawings and specifications.

Coordination shall be consistent with the submission requirements of the drawings and specifications through prefinal/final design. The final design shall reflect a level of effort such that the technical requirements of the project have been addressed and outlined so that they may be reviewed to determine if the final design will meet the applicable requirements for the project. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the project. Construction drawings shall reflect organization and clarity. Technical specifications shall be outlined in a manner reflecting the final specifications. Design analyses and calculations shall be included with the submission.

The technical specifications governing all treatment systems, shall include contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the system and appropriate operational procedures training once the startup has been successfully accomplished.

Compliance with the Requirements of other Environmental Laws

All design packages submitted shall be in accordance with CERCLA procedures on compliance with other environmental laws. Refer to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) for additional information. All applicable or relevant and appropriate requirements identified shall be incorporated into the design.

All required application forms shall be obtained, completed, and provided to the appropriate permitting authority in a timely manner. Copies of all correspondence from the permitting agency shall be furnished to U.S. EPA and IEPA.

Task 4 - Remedial Action Implementation

A schedule shall be developed demonstrating the time for development of the remedial design and implementation of this remedial action. The schedule shall include time frames for submittal of design documents to U.S. EPA for review and approval, and meetings for discussions of submittals including all plans described in Task 2 of this Scope of Work.

Key milestones for this remedial action are:

Work Plan submittal - sixty (60) calendar days after the effective date of the Order.

Revised Work Plan submittals - thirty (30) calendar days after receipt of disapproval of the Work Plan submittal.

Supporting Documents (i.e. QAPPs, Sampling Plans, O & M Plan, Health & Safety Plans) submittals - In accordance with the schedule approved in the Work Plan.

Revised Supporting Documents submittals - thirty (30) calendar days after receipt of disapproval of the Supporting Document submittal.

Initial Design (30%) submittal - ninety (90) calendar days after approval of the Work Plan.

Intermediate Design (60%) submittal - sixty (60) calendar days after approval of 30% design.

Prefinal Design (95%) submittal - sixty (60) calendar days after approval of 60% design.

Final Design (100%) submittal - fifteen (15) calendar days after approval of 95% design.

Begin Implementation of the Remedial Action - One hundred and fifteen (115) calendar days after approval of the 100% design submittal.